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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,807	12/05/2003	Olga Bandman	PF-0651-1 DIV	3257

22428 7590 12/20/2004

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

MONSHIPOURI, MARYAM

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,807

Applicant(s)

BANDMAN ET AL.

Examiner

Maryam Monshipouri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-29 is/are pending in the application.
- 4a) Of the above claim(s) 2,11 and 14-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 3,6,7,9,12 and 13 is/are rejected.
- 7) ☒ Claim(s) 4,5 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date filed 12/5/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: attachment.

Applicant's response to restriction requirement filed 9/21/2004 is acknowledged.

Applicant elected Group II invention (claims 3-7, 9-10, 12-13) with traverse.

In traversal of restriction requirement applicant argues the following:

(I) That the unity of invention standard must be applied in national stage applications and according to that standard polypeptides of Group I and the DNA of Group II exhibit corresponding technical features and should be examined together.

(II) That the search of Groups I and II is not unduly burdensome as the DNA of Group II encodes the Polypeptide of Group I.

(III) According to section 803.04 of MPEP, which states that while contending that DNA sequences encoding different proteins "constitute independent and distinct inventions" the commissioner has decided to "permit a reasonable number of DNA sequences to be claimed in a single application". Applicant continues by stating that to this end The patent Office determined that normally ten sequences constitute a reasonable number for examination purposes and that the number does not constitute an undue burden on the office. Indeed the office states that " up to ten independent and distinct nucleotide sequences will be examined in a single application without restriction". Accordingly, the Examiner's contention that inventions (A)-(B) are "distinct from the other" and therefore subject to restriction is not consistent with the Office practice. Applicant again cites MPEP section 803.04 which states that "only the ten nucleotide sequence selected in response to the restriction requirement and any other claimed sequences which are patentably indistinct therefrom will be examined". For this

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reason applicants request that inventions (K) to (N) drawn to SEQ ID NO:29-32 to be examined together with invention (J).

These arguments were fully considered but ere found **unpersuasive** for the following reasons: In response to applicant's **first** argument it should be noted that unity of invention standard is only applicable to 371 applications and not their divisional. The instant case is a divisional of case 09/889,238 which is 371 application. Therefore the claims in this case are restricted under 35 USA 121 and 372 standard which appropriately restricts between DNA and polypeptide according to criteria provided in the previous office action.

With respect to applicant's **second** argument the examiner respectfully disagrees with the applicant the rejoinder of Groups I-II inventions does not impose an undue burden of searching on the examiner. As clearly indicated in the previous office action said inventions belong to entirely different subclasses. It may be true that there is some overlap between searches required for each invention of Groups I-II, but said searches as shown by their separate classification are not coextensive and therefore rejoinder of said inventions **does impose an undue burden of searching** on the examiner.

In response to applicant's **third** argument the examiner is well ware that MPEP section 803.04 states that "up to ten independent and distinct inventions will be examined together in a single application without restriction". However, said section specifically stresses that rejoinder of said extra sequence with the elected invention should not create an undue burden of searching on the Office, which is the case here. The examiner maintains that rejoinder of any other inventions such as A,B, J and K-N

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with the elected invention would require many additional searches (both of sequences and of key words) in both commercial and in house data bases, and would unduly impose a search burden of search and thereby examination on the examiner as each of said sequences are drawn to patentably distinct inventions and should each be examined and searched in a separate application. Further, said MPEP section simply indicates that up to ten DNA sequences may be examined together in a single case and currently up to ten sequences (namely SEQ ID NO:28) is under examination.

Finally, in view of the response provided above, in addition to arguments provided in the previous office action, restriction is maintained and is hereby made **final**.

Claim Objections

Claims 3-7 and 9-10 are objected to because of the following informalities: said claims (specially base claims 3, and 9) depend from non-elected invention of Group I as well as non-elected sequences set forth as SEQ ID NO:1-9, 11-18. Claims 4-7 and 10 are merely objected to for depending upon base claims under objection. Appropriate correction is required.

Claim 3 is objected to because of the following informalities: said claim depends from claim 1 which recites the grammatically incorrect phrase "a naturally occurring an amino acid" in part (b). Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 which depends from claim 1, recites the terms "biologically active fragment" and "immunogenic fragment" which are unclear. Applicant has not clearly defined these terms in the specification. It is not clear what constitutes biological activity of "biologically active fragments" and what are the structural and functional characteristics of "immunogenic fragments". Appropriate clarification is required.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3, 6-7, 9, 12 and 13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for isolated polynucleotides having SEQ ID NO:28 or encoding SEQ ID NO:10, does not reasonably provide enablement for any of the following:

- (a) Polynucleotides having at least 90% identity to SEQ ID NO:28 or capable of encoding polypeptides having 90% identity to SEQ ID NO:10, with no function.
- (b) Polynucleotides encoding "biologically active" fragments of SEQ ID NO:10 with no function.
- (c) Polynucleotides encoding "immunogenic" fragments of SEQ ID NO:10 with no function.

(d) Polynucleotides comprising at least 60 contiguous nucleotides of SEQ ID NO:28 with no function.

The criteria for undue experimentation, summarized in *re Wands*, 8, USPQ2n 1400 (Fed. Cir. 1988) are: 1) the quantity of experimentation necessary, 2) the amount of direction or guidance presented, 3) the presence and absence of working examples, 4) the nature of the invention, 5) the state of prior art, 6) the relative skill of those in the art, 7) the predictability or unpredictability of the art, and 8) the breadth of the claims.

The specification fails to teach which critical residues in claimed polynucleotides must be retained such that the above mentioned DNA homologs are capable of encoding human peptidase HPEP-10. No examples of such DNA residues are provided either. Current state of prior art indicates that once more than 3-4 residues of a DNA sequence encoding a full-length polypeptide with peptidase activity is mutated or deleted (see parts c-d above) said mutated DNA sequence is not necessarily going to encode a product with the function of said full-length polypeptide. Therefore, due to lack of sufficient guidance and examples provided in the specification and due to unpredictability of prior art as to which residues within a DNA sequence encoding a full-length polypeptide must be retained such that, after mutation, said DNA sequence is still capable of encoding said full-length polypeptide, one of skill in the art has to go through the burden of undue experimentation in order to screen for those polynucleotides that are within the scope of this invention and as such the claims go beyond the scope of the disclosure.

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Apart from lack of enablement due to absence of function above, claimed polynucleotides are subject to scope of enablement rejection due to lack of sufficient structural information. With respect to polynucleotides of parts b-c, above, it should be noted that, as mentioned previously, the exact definition of said terms (i.e. biologically active or immunogenic fragments) are not provided. Thus it is not possible to determine whether said fragments are of sufficient length to be able to encode any products with function. With respect to part (d) above, it should be noted that 60 contiguous bases are totally insufficient to encode any product with activity rendering said polynucleotides subject to total lack of enablement.

Since said polynucleotides are not enabled (claims 3, 12-13) vectors and host cells comprising said polynucleotides (claims 6-7) and methods of expressing said polynucleotides (claim 9) are not enabled either.

Claims 3, 6-7, 9-10, 12-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 3 (and its dependent claims 6-7), 9 (and its dependent claim 10), 12 and 13 are each directed to the following **genera** of polynucleotides which has not been adequately described in the specification (see the following:

(a) A **genus** of polynucleotides having at least 90% identity to SEQ ID NO:28 or capable of encoding polypeptides having 90% identity to SEQ ID NO:10, with no function.

(b) A **genus** of polynucleotides encoding "biologically active" fragments of SEQ ID NO:10 with no function.

(c) A **genus** of polynucleotides encoding "immunogenic" fragments of SEQ ID NO:10 with no function.

(d) A **genus** of polynucleotides comprising at least 60 contiguous nucleotides of SEQ ID NO:28 with no function.

The specification does not contain any disclosure of the function of all DNA sequences that are recited in sections (a)-(d), above. The genera of cDNAs that comprise these above cDNA molecules is a large variable genera with the potentiality of encoding many different proteins. Therefore, many functionally unrelated DNAs are encompassed within the scope of these claims, including partial DNA sequences. The specification discloses only a **single species** for each claimed genus (namely SEQ ID NO:28) which is insufficient to put one of skill in the art in possession of the attributes and features of all species within the claimed genus. Therefore, one skilled in the art cannot reasonably conclude that the applicant had possession of the claimed invention at the time the instant application was filed.

Applicant is referred to the revised interim guidelines concerning compliance with the written description requirement of U.S.C. 112, first paragraph, published in the Official Gazette and also available at www.uspto.gov.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3, 6-7, 9 and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Baker et al. (US200030004311, filed Jan 2, 2003). Baker teaches an isolated DNA sequence that encodes a polypeptide having 99.6% identity to SEQ ID NO:10 of this invention, its DNA sequence has 99.9% identity to SEQ ID NO:28 of this invention (see the attached alignment), anticipating claims 3, 12 and 13. Under section entitled "preparation of PRO", sub-sections 1-5, Baker teaches various vectors and host cells used for expression of its DNA sequence (See SEQ ID NO:191-192), its expression methods and its expression product, anticipating claims 6-7, and 9.

Claims 3, 6-7, 9 and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Robison et al. (U.S. Patent No., 6,331,427, issued 12/18/2001). It is noted that applicant claims priority to three provisional applications. However, the examiner could not find support for claimed subject matter in provisional application 60/172,247 which has the earliest filing date namely 1/11/99. Thus, the earliest possible filing date that applicant may benefit from, is 5/1999. In view of said date, Robison

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teaches an isolated DNA sequence (see its SEQ ID NO:78) that has 88.85% identity to SEQ ID NO:28 of this invention (see the attached alignment). Since said DNA sequence identity can be increased by 1.5-2.5% upon changing the analysis parameters, it is believed that said DNA sequence is capable of displaying at least 90% identity to SEQ ID NO:28 of this invention, anticipating claims 12-13. Said DNA sequence also can encode a "biologically active fragment" or an "immunogenic fragment" of SEQ ID NO:10, anticipating claim 3. In columns 2, and 49-52 Robison teaches about vectors and host cells comprising its DNA sequences and methods of expressing said sequences anticipating claims 6-7, and 9.

No claims are allowed.

Allowable Subject Matter

An isolated DNA sequence having SEQ ID NO:28 or encoding a SEQ ID NO:10 is free of prior art. Further, the prior art does not teach or suggest preparing such specifically claimed DNA sequence. Hence, said DNA sequence is both novel and non-obvious.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on 7:00 a.m to 4:30 p.m. except for alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnanthapu Achutamurthy can be reached on (571) 272-0928. The fax

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phone number for the organization where this application or proceeding is assigned is.

703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maryam Monshipouri Ph.D.

Primary Examiner

Db	1104	CCCAATCCATCCATCACTTACGTTTCACGAGCGTGGAGAAAATAGACGCCCTC	1162
QY	381	CysAspIysThrThrArgLysThrTyrPhePheValGlyIleTrpCysTrpAspAsp	400
Db	1164	TGTGATTAAGACACAGAAAACCTACTCTTTGGGGCATTTGGTGTGAGAGTTTGAT	1222
QY	401	GIuuecThrInTrmEasAspLysGlyPheProGlnArgValIleLysHisPheProGly	420
Db	1224	GAATGACCCAAACCACTGACAGAAAGGATCCCCGAGAGAGTGTAACATTTCTCTGGA	1282
QY	421	IleSerIleArgValAspAlaIlePheGlnTyrLysGlyPhePhePheSerArgGly	440
Db	1284	ATCAGTATCCGTCGTGTGATGCTGCTTCCAGTACAAAGATCTCTCTTTTCAGCCGTGA	1343
QY	441	SerLysGlnPheGluTyrAsnIleLysThrLysAsnIleThrArgIleMetArgThrAsn	460
Db	1344	TCAAAGCATTTGTAATCAACATTAAAGCAAGAAATATACCGAATCATAGAACTAAT	1403
QY	461	ThrTrpPheGlnCysLysGluProLysAsnSerSerPheGlyPheAspIleAsnLysGlu	480
Db	1404	ACTTGCTTCAATGACCAAGAACCAAGAACTCCTCATTTGGTTTGTGATATCAACAAGAA	1463
QY	481	LysAlaHisSerGlyGlyIleLysIleLeuTyrHisLysSerLeuSerLeuPheIlePhe	500
Db	1464	AAACACATTCAGAGGACATMAAATATGTGATCATAGAGATTTAAACCTGTATATTTT	1523
QY	501	GlyIleValHisLeuLeuLysAsnThrSerIleTyrGln	513
Db	1524	GGTATGTTGATTTGCTGAAAAACACTTCAATTATCA	1562

RESULT 3

US-09-280-116-78/c

Sequence 78, Application US/09280116A

Patent No. 6331427

GENERAL INFORMATION:

APPLICANT: Robison, Keith E.

TITLE OR INVENTION: Nucleic Acid Molecules Encoding Human Protease Homologs

FILE REFERENCE: 5800-24, 035800/16965

CURRENT APPLICATION NUMBER: US/09/280.116A

CURRENT FILING DATE: 1999-03-26

NUMBER OF SEQ ID NOS: 268

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 78

LENGTH: 1687

TYPE: DNA

ORGANISM: Homo sapiens

FEATURE:

OTHER INFORMATION: matrix metalloproteases

FEATURE:

NAME/KEY: misc.feature

LOCATION: (1)..(1687)

OTHER INFORMATION: n = a, t, c or g

US-09-280-116-78

Alignment Scores:			
Pred. No.:	3	83e-288	length: 1687
Scores:	2455.00		Matches: 454
Percent Similarity:	99.78%		Conservative: 0
Best Local Similarity:	99.78%		Mismatches: 0
Query Match:	88.85%		Indels: 1
DB:	3		Gaps: 0

US-10-729-807-10 (1-513) x US-09-280-116-78 (1-1687)

QY	60	AspAspLysIleArgGluMetGlnAlaPhePheGlyLeuThrValThrGlyLysLeuAsp	79
Db <th>1675</th> <th>GATGACCAAAATTCGGGAAATGCAAGCATTTTGGATTGACAGTGAATGCAAAACTGAC</th> <th>1616</th>	1675	GATGACCAAAATTCGGGAAATGCAAGCATTTTGGATTGACAGTGAATGCAAAACTGAC	1616

QY	80	SetAsnThrLeuGluIleMetCysThrProArgCysGlyValProAspValGlyGlnTyr	99
Db <th>1615</th> <th>TCAAAACCTTGGATGATCATGAAGACCCCAAGGTGTGGGTGCTGATGTGGGCCAGTAT</th> <th>1556</th>	1615	TCAAAACCTTGGATGATCATGAAGACCCCAAGGTGTGGGTGCTGATGTGGGCCAGTAT	1556

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Db 1381 ACTTGTTTCATGCAAGAACCAAGAACTCTTCATTGTTTGTATATCAACAGAA 1440
QY 481 LysAlaHisSerGlyGlyIleTyrIleLeuTyrHisIleSerLeuSerLeuPheIlePhe 500
Db 1441 AAGACATTCAGGAGGCGCTAAGATTCATGATCAAGAGTTAAGCTTTTATTTT 1500
QY 501 GlyIleValHisLeuLeuIleLysHisThrSerIleTyrGln 513
Db 1501 GGTATGTTTCATTGCTGAAAAACATTCCTATTATCA 1539
RESULT 5
US-10-028-072-191
Sequence 191, Application US/10028072
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maureen
APPLICANT: Deforge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Geritsen, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Sherwood, Steven
APPLICANT: Smith, Victoria
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Zhang
TITLE OF INVENTION:
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/049911
PRIOR FILING DATE: 1997-06-18
PRIOR APPLICATION NUMBER: 60/056974
PRIOR FILING DATE: 1997-08-26
PRIOR APPLICATION NUMBER: 60/059113
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059115
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059117
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059122
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059184
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PRIOR APPLICATION NUMBER: 60/059263
PRIOR FILING DATE: 1997-09-18
PRIOR APPLICATION NUMBER: 60/059352
PRIOR FILING DATE: 1997-09-19
PRIOR APPLICATION NUMBER: 60/059588
PRIOR FILING DATE: 1997-09-19
PRIOR APPLICATION NUMBER: 60/059836
PRIOR FILING DATE: 1997-09-24
PRIOR APPLICATION NUMBER: 60/062250
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PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/062287
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/062814
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/062816
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/063045
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/063082
PRIOR FILING DATE: 1997-10-31
PRIOR APPLICATION NUMBER: 60/063127
PRIOR FILING DATE: 1997-10-24
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PRIOR FILING DATE: 1997-10-27
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PRIOR FILING DATE: 1997-10-29
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PRIOR FILING DATE: 1997-10-17
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PRIOR FILING DATE: 1997-11-03
PRIOR APPLICATION NUMBER: 60/064809
PRIOR FILING DATE: 1997-11-07
PRIOR APPLICATION NUMBER: 60/065186
PRIOR FILING DATE: 1997-11-12
PRIOR APPLICATION NUMBER: 60/065846
PRIOR FILING DATE: 1997-11-17
PRIOR APPLICATION NUMBER: 60/066364
PRIOR FILING DATE: 1997-11-21
PRIOR APPLICATION NUMBER: 60/066453
PRIOR FILING DATE: 1997-11-24
PRIOR APPLICATION NUMBER: 60/066511
PRIOR FILING DATE: 1997-11-24
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PRIOR FILING DATE: 1997-12-11
PRIOR APPLICATION NUMBER: 60/069334
PRIOR FILING DATE: 1997-12-11
PRIOR APPLICATION NUMBER: 60/069694
PRIOR FILING DATE: 1997-12-16
PRIOR APPLICATION NUMBER: 60/072320
PRIOR FILING DATE: 1998-01-23
PRIOR APPLICATION NUMBER: 60/073612
PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: 60/074086
PRIOR FILING DATE: 1998-02-09
PRIOR APPLICATION NUMBER: 60/074092
PRIOR FILING DATE: 1998-02-09
PRIOR APPLICATION NUMBER: 60/077791
PRIOR FILING DATE: 1998-03-12
PRIOR APPLICATION NUMBER: 60/078910
PRIOR FILING DATE: 1998-03-20
PRIOR APPLICATION NUMBER: 60/079294
PRIOR FILING DATE: 1998-03-25
PRIOR APPLICATION NUMBER: 60/079663
PRIOR FILING DATE: 1998-02-27
PRIOR APPLICATION NUMBER: 60/079728
PRIOR FILING DATE: 1998-03-27
PRIOR APPLICATION NUMBER: 60/080165
PRIOR FILING DATE: 1998-03-31
PRIOR APPLICATION NUMBER: 60/081203
PRIOR FILING DATE: 1998-04-09
PRIOR APPLICATION NUMBER: 60/081229
PRIOR FILING DATE: 1998-04-09
PRIOR APPLICATION NUMBER: 60/081695
PRIOR FILING DATE: 1998-04-14
PRIOR APPLICATION NUMBER: 60/081817
PRIOR FILING DATE: 1998-04-15
PRIOR APPLICATION NUMBER: 60/081818
PRIOR FILING DATE: 1998-04-15

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Page 8

2	1044	CTGGTTTTAAAGATGAAACCTTCGATATGATCGAGAGATATCTGTCTTCGCAATATT	1103
Y	361	ProlySerLeileIleThrLeuGlyPheProGlyArgValylsIleAspAlaVal	380
b	1104	CCCAATTCATCCATAACATTAGGTTTTCCAGAGAGGTGTGAAGAAATAAATCAACCGCTC	1163
Y	381	CysAspLysIleThrArgLysThrIlePheIleValGlyIleIleProCysTrpArgPheAsp	400
b	1164	TGTGATTAGACCAACAAGAAAACTACTCTTTGTGGCATTGTGTGGCGAGGTTGAT	1223
Y	401	GluMetThrGlnIleMetAspLysGlyPheProGlnArgValylsIlePheProGly	420
b	1224	GAATATACCCCAACCATGATGACAAAGATTCGCGAGAGATGTAAACACTTCTCTGA	1283
Y	421	IleSerIleArgValAspAlaIlePheGlnIleArgLysGlyPhePhePheSerArgGly	440
b	1284	ATCAGATATCCGGTTGATGCTGCTTCCAGACAAAGATCTCTTTTTCGCGCGTGA	1343
Y	441	SerLysGlnPheGlnIleArgIleIleThrIleAsnIleIleArgIleLeuArgIleAsn	460
b	1344	TCAAGCATTTGATTGATTCACATTAGACAAAGATTTTACCGGATCATGAGACTAT	1403
Y	461	ThrTrpPheGlnCysLysGlnProLysAsnSerSerPheGlyIleAsnIleAsnIleGln	480
b	1404	ACTGGTTTCAATGCAAGAACCAAGAACCAAGACCTCATTTGGTTTAAATTCACAAGAAA	1463
Y	481	LysAlaHisSerGlyIleLysIleLeuIleIleIleIleIleIleIleIleIleIleIleIleIle	500
b	1464	AAAGCACATTTCAGAGGCGATTAAGATATTGTATCATTAAGATTAGCTTTGTTATTATT	1523
Y	501	GlyIleValHisLeuLeuLysAsnIleSerIleIleIleIleIleIleIleIleIleIleIleIleIle	513
b	1524	GGATTGTTCATTTGTGTGAACAACCTTCAATTATATAA	1562

	Percent Similarity:	99.81%	Conservative:	0
	Best Local Similarity:	99.81%	Mismatch:	1
	Query Match:	99.60%	Indels:	0
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US-10-729-807-10 (1-513) x US-10-140-808-191 (1-1647)				
QY	1 MetIysArgLeuLeuLeuCysLeuPhePheIleThrPheSerSeraIaPheProLeu	20		
Ds	24 ATGAAGGCCCTTCGTGCTTCGTATTGGTCTTTATTAACATTTCTTCGTATTCCTTA	83		
QY	21 VALASGmetThrGluAsnGluGluAsnMetGluLeuIaGluIaIaTYrLeuAsnGluPhe	40		
Ds	84 GTCCCGAAGAGCGAAATGAAGAAATATAGCACTGGCTCAGGATATCTCAACCCAGTTC	14		
QY	41 TYrSerLeuGluIleGluGluIaSerHisLeuValGlnSerIysAsnAArgSerLeuIleAsp	60		
Ds	144 TACTCTCTCTGAAGAAGAGGGAATCATCTCTGTCTCAACAGAAATAGAGCTTCATAGAT	20		
QY	61 AspIysIleAArgIuMetGlnIaPhePheGlyLeuThrValThrGlyIysLeuAspSer	80		
Ds	204 GACAAATATCCGGAAAGCAACGACATTTTGGATTGACAGGACCTGGAAATCTGACCTA	26		
QY	81 AsnThrLeuGluIleValIleValThrProArgCysGluValProAspValGlyGlnTYrGly	10		
Ds	264 AACACCCCTTGAGACAGAGAGACACCCAGAGGTGGGGGCTGATGTGGCCCGAGTATGGC	32		
QY	101 TYrThrLeuProGlyIleTYrPArgIysTYrAsnLeuThrTYrArgIleIleAsnTYrThrPro	12		
Ds	324 TACACCTCCCTCGGTGGAGAAATATCAACCTCACTCAACAAATATTAACATATCTACTCG	38		
QY	121 AspMetIleAArgIaIaIaValAspGluIaIleGlnGluGluIleuGluValTYrSerIys	14		
Ds	384 GATATGACACAGCTGGTGTGGATGAGCTATCCAGAGAGTTTGAAGTGTGAGACAAA	44		

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US-10-140-808-191
Sequence 191, Application US/10140808
Publication No. US20030017563a1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maureen
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroli, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Sherwood, Steven
APPLICANT: Smith, Victoria
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Maranabe, Colin X.
APPLICANT: Wood, William
APPLICANT: Zhang, Zhenxi
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
FILE REFERENCE: P3330R/C182
CURRENT APPLICATION NUMBER: US/10/140,808
PRIORITY FILING DATE: 2002-05-07
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 191
LENGTH: 1647
TYPE: DNA
F. ORGANISM: Homo Sapien
US-10-140-808-191

Alignment Scores:
0
pred. No.: 2752.00
Length: 1647
Matches: 512

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Qy	161	ATGTTAAAGVAAHISGIYARGYSProAGTYrPheaspgIYProLeuGIYVAlLeuSGIY	18
Db	504	AGGATCCAGATCCATGGTCCGGTCTCTGCTATTTAATGGTCCCTTGGGAGCTGGAC	56
Qy	181	HSIAIApHeP-OP-PHOGIYProGIYLeuGIYGLYAspTHrHisPheaspgIuabpGIuabn	20
Db	564	CATGCTTTCTCTGGTCCGGGTGGGTGGTGCATCTTTTGAATGGATGAAAC	62
Qy	201	TPITrIYAspGIYAlaGIYpHeaLeuPheLeuValAlaAlaHISGluPheGIYHis	22
Db	624	TGGACCAAGATGAGACAGATTCACATGTTCTTGGCTGCTCATGAAATTGGTCAAT	68
Qy	221	AlaLeuGIYLeuSerTHrHisSerAsnAspGINThrAlaLeuMetPheProAsnTYrValSer	24
Db	684	GCACGGGGCTTCTCATCTCCAAATATTAACAAGCCTTGAGGTTCCCAATTATGCTCC	74
Qy	241	LeuAspProAlaGluTYrProLeuSerGIHAspAlIleasnGIYIleGlnSerIleTYr	26
Db	744	CTGGATCCCGAATAATCCCATCTTCTCAGGATGATATCAATAGAAATCCAGTCCATCTAT	80
Qy	261	GIYGIYLeuSP-OLYValProAlaLYSP-OLYSGluProThrIleProHISAlaCYAsp	28
Db	804	GGAGGTCGGCTAAGATACCTGCTAAGCCAAAGAACCCACTAATACCCATGGCTTGAC	86
Qy	281	ProAspLeuTHrPheAspAlaIleTHrTHrPheArgArgIuValMetPhePheLYSGIY	30
Db	864	CTGACTGACCTTTGACGCTATCAACAATTCGCCACAGAAAGTAAGTCTTTAAGGC	92
Qy	301	AspHISLeuTPAspGIleTYrTYrAspIleTHrAspValGluPheGluLeuIleAlaSer	32
Db	924	AGGACCTATGAGAGATCTATATGATATACCGAATGTGAGTTGAATTAATTTGCTTA	98
Qy	321	PheTP-PROSerLeuProAlaAspLeuGlnAlaAlaTYrGluAsnProArgAspLYSle	34

Page 4

624 TG 2Y

624 TGGACCAAGGATGAGCAGGATTCAACTTGTTCCTGTG

! APPLICANT: FLEWELL, STEPH

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US-10-028-072-192
RESULT 4
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; Publication No. US20030004311A1
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; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresin, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen

```

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Page 5

APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Sherwood, Steven
APPLICANT: Smith, Victoria
APPLICANT: Stewart, Timothy A.
APPLICANT: Thomas, Daniel
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
TITLE OF INVENTION:
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
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PRIOR FILING DATE: 1997-06-18
PRIOR APPLICATION NUMBER: 60/056974
PRIOR FILING DATE: 1997-08-26
PRIOR APPLICATION NUMBER: 60/059113
PRIOR FILING DATE: 1997-09-17
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PRIOR APPLICATION NUMBER: 60/085339
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Page 0

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Score:	2752.00
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Best Local Similarity:	99.81%
Query Match:	93.92%
DB:	14
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Length:	
Matches:	
Conservative:	
Mismatches:	
Indels:	
Gaps:	

QY	22	ANGAAGCGCTTCGCTCGTGTGGTCTTTATTAACATTTCTCGCAATTCGCCCTTA	83
Db	1	MetLysAlaGluLeuLeuLeuPheLeuPhePheLeuIleThrPheSerSerAlaPheProLeu	20
QY	84	GTCCGAGTACGAGAAATAGAAAATATGSCAAGTGGCTACGAGCATATCTCAACCGATTC	14
Db	21	ValArgMetThrGluAsnGluGluAsnMetGlnLeuAlaGlnAlaIzTyrluAsnGlnIlePhe	40
QY	144	TACTCTCTTGAATATGAAAGGGAATCATCTTGTTCAAAGCAAGATAGGAGTCTCATAGAT	20
Db	41	TySerLeuGlnIleGluGluAsnHisLeuValGlnSerLysAsnArgSerLeuIleAsp	60
QY	204	GACCAAAATTCGGGAAATGCAAGACATTTTGGATTGACAGAGCATCGGAAAACTGGACTCA	26
Db	61	AspLysIleLeuGluMetGlnAlaPhePheGlyLeuThrValThrGlyLysLeuAspSer	80

QY	26	AA	CA	CC	CT	GA	AT	CA	TAA	CA	CA	CC	AG	GT	GG	TG	CT	AT	TG	GC	CA	GA	TG	GC	323				
Db	81	AA	TT	Th	Leu	Glu	Leu	Leu	Th	Pro	Arg	Cys	Gly	Val	Pro	Arg	Val	Gly	Leu	Arg	Gly	100							
QY	324	TA	CA	CC	CT	CC	CG	GT	GG	TA	GA	AA	AA	TA	CA	CC	TA	CA	CC	TA	CA	GA	TA	TA	CA	CT	TC	CG	383
Db	101	Ty	Th	Leu	Pro	Gly	Tyr	Arg	Gly	Leu	Th	Pro	Arg	Val	Leu	Th	Pro	Arg	Val	Leu	Th	Pro	Arg	Val	Leu	Th	Pro	Arg	120
QY	384	GA	TAT	GG	CA	CG	AG	CT	CT	GT	GG	AT	GA	GG	CA	TTC	CA	GA	AG	CT	TAG	AG	CT	GA	GA	443			
Db	121	Asp	Met	Ala	Arg	Val	Ala	Val	Asp	Glu	Ala	Leu	Glu	Leu	Val	Ala	Thy	Pro	Leu	Val	Ala	Thy	Pro	Leu	Val	Ala	Thy	Pro	140
QY	444	GT	CA	CT	CC	CT	AA	AT	TA	CA	CA	AA	AT	TTC	AA	GA	CA	CA	TC	TA	TC	AT	TC	CT	TT	503			
Db	141	Val	Th	Pro	Leu	Leu	Val	Pro	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	160
QY	504	AG	AC	TA	CC	AG	TA	CC	AG	TA	CC	AG	TA	CC	AG	TA	CC	AG	TA	CC	AG	TA	CC	AG	TA	CC	AG	TA	563
Db	161	Arg	Th	Arg	Val	His	Gly	Arg	Cys	Pro	Arg	Tyr	Pro	Leu	Arg	Val	Leu	Arg	Val	Leu	Arg	Val	Leu	Arg	Val	Leu	Arg	Val	180
QY	564	CA	AG	CT	TC	CC	TC	GT	CG	GT	CG	GT	CG	GT	CG	GT	CG	GT	CG	GT	CG	GT	CG	GT	CG	GT	CG	GT	623
Db	181	His	Ala	Pro	Leu	Pro	Gly	Pro	Gly	Leu	Gly	Val	Asp	Pro	His	Asp	Pro	His	Asp	Pro	His	Asp	Pro	His	Asp	Pro	His	Asp	200
QY	624	TG	GA	CC	AA	GG	AT	GA	AG	AT	CA	CT	GT	TT	CT	GT	GG	CT	CT	CA	TA	AT	TT	GG	CT	AT	683		
Db	201	Tyr	Th	Leu	Val	Asp	Gly	Val	Arg	Leu	Pro	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	Ala	Leu	Val	220
QY	684	GC	AC	TG	GG	GG	CT	CT	CA	CT	CC	AA	TG	AT	CA	AA	CA	CC	CT	TA	GT	TC	CC	AA	TA	TG	CT	CC	743
Db	221	Ala	Leu	Gly	Leu	Ser	His	Ser	Asn	Asp	Glu	Thr	Ala	Leu	Met	Pro	Leu	Arg	Val	Ala	Ser	240							
QY	744	CT	GA	T	CC	CA	AA	AA	TA	CC	CA	TT	TC	CA	GA	T	CA	TA	CA	TT	GA	AT	CC	CA	GC	CA	TT	AT	803
Db	241	Leu	Asp	Pro	Arg	Leu	Gly	Tyr	Pro	Leu	Ser	Glu	Asp	Asp	Arg	Leu	Ser	Glu	Asp	Asp	Arg	Leu	Ser	Glu	Asp	Asp	Arg	Leu	260
QY	804	GA	AG	CT	GC	TA	AG	CT	GC	TA	AG	CT	GC	TA	AG	CT	GC	TA	AG	CT	GC	TA	AG	CT	GC	TA	AG	CT	863
Db	261	Gly	Gly	Leu	Pro	Leu	Val	Ala	Pro	Leu	Val	Pro	Leu	Val	Pro	Leu	Val	Pro	Leu	Val	Pro	Leu	Val	Pro	Leu	Val	Pro	Leu	280
QY	864	CT	GA	T	TC	TA	CT	TC	TA	CT	TC	TA	CT	TC	TA	CT	TC	TA	CT	TC	TA	CT	TC	TA	CT	TC	TA	CT	923
Db	281	Pro	Asp	Leu	Th	Pro	His	Asp	Ala	Leu	Th	Pro	His	Asp	Ala	Leu	Th	Pro	His	Asp	Ala	Leu	Th	Pro	His	Asp	Ala	Leu	300

